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TRANSMITTAL FORM

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PTO/SB/21 (09-04) **Application Number** 09/826,583 Filing Date April 6, 2001 First Named Inventor Unger, Marc Art Unit 3753 **Examiner Name** Chambers, A. Michael Attorney Docket Number 20174C-003010US

			EN	CLOSURES (Ch	eck all that apply	<i>'</i>)	
\boxtimes	Fee Trans	mittal Form		Drawing(s)			After Allowance Communication to TC
	Fe	ee Attached		Licensing-related Pap	ers		Appeal Communication to Board of Appeals and Interferences
Amendment/Reply After Final Affidavits/declaration(s) Extension of Time Request Express Abandonment Request Information Disclosure Statement Certified Copy of Priority Document(s)		Rem	Petition Petition to Convert to a Provisional Application Power of Attorney, Re Change of Correspond Terminal Disclaimer Request for Refund CD, Number of CD(s) Landscape Tablarks The Commis	n vocation dence Address ble on CD sioner is authori	Retur	Appeal Communication to TC (Appeal Notice, Brief, Reply Brief) Proprietary Information Status Letter Other Enclosure(s) (please identify below): its 1, 2 and 3 n Postcard charge any additional fees to Deposit	
	Application Re	tissing Parts/ Incomplete ply to Missing Parts der 37 CFR 1.52 or 1.53					
		SIGNA	TURE	OF APPLICANT,	ATTORNEY, C	OR AG	ENT
Firm N	lame	Townsend and Towns	send ar	nd Crew LLP			
Signat	ure	Patal re					
Printed	d name	Patrick M. Boucher					
Date		April 14, 2005			Reg. No.	44,03	37

CERTIFICATE OF TRANSMISSION/MAILING

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1450 on the date shown below.

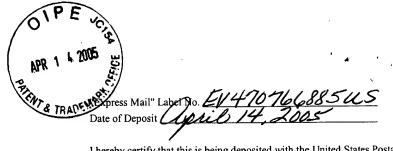
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Date

April 14, 2005

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Feet of 1206		Application Number	09/826,5	83		
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For FY 2	2005	First Named Inventor	Unger, M	larc		
Applicant claims small entity statu		Examiner Name	Chambe	rs, A. Michae	el ·	
		Art Unit	3753	· · · · · · · · · · · · · · · · · · ·		
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METHOD OF PAYMENT (check a	all that apply)					
Check Credit Card	Money Order Non	e Other (please ide	entify):			
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3. APPLICATION SIZE FEE If the specification and drawings for each additional 50 sheets Total Sheets Extra SI - 100 =	or fraction thereof. See	35 U.S.C. 41(a)(1)(G) each additional 50 or fra) and 37 Cl action there	FR 1.16(s).	5 for small ent Fee Paid (\$	
4. OTHER FEE(S)					Fees Paid (<u>\$)</u>
Non-English Specification,	\$130 fee (no small enti	ty discount)				
Other: Petition Under 37 C.	F.R. 1.181(A)(1)				130	_
SUBMITTED BY						
Signature Patak	Ne	Registration No. (Attorney/Agent) 44,0)37	Telephone	303-571-4000)
Name (Print/Type) Patrick M. Bou	cher			Date April	14, 2005	



Docket No.: 20174C-003010US Client Ref. No.: CIT-3016-CIP1-CIP1

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Commissioner for Patents

P.O. Box 1450

Alexandria, VA 22313-1450

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of:

Marc Unger et al.

Application No.: 09/826,583

Filed: April 6, 2001

For: MICROFABRICATED

ELASTOMERIC VALVE AND PUMP

SYSTEMS

Examiner:

Chambers, A. Michael

Art Unit:

3753

PETITION UNDER 37 C.F.R 1.181(A)(1)

Commissioner for Patents P.O. Box 1450 Alexandria, VA 22313-1450

Sir:

Applicants hereby petition that acknowledgement of consideration of references cited in certain Information Disclosure Statements be provided by (1) returning a copy of relevant forms PTO/SB/08A and PTO/SB/08B signed by the Examiner to Applicants and (2) printing an identification of those references on the patent that issues from the captioned application.

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Marc Unger et al.

Application No.: 09/826,583

Page 2

Statement of Facts

- 1. The captioned application was filed on April 6, 2001.
- 2. The first Office Action on the merits was mailed by the Office on December 16, 2002.
- 3. On November 21, 2001, i.e. before the mailing of the first Office Action, a Supplemental Information Disclosure Statement Under 37 CFR §1.97 and §1.98 was filed by first class mail. A postcard stamped by the Office acknowledging receipt on January 4, 2002 was returned. A true copy of the Supplemental Information Disclosure Statement Under 37 CFR §1.97 and §1.98 and stamped returned postcard are attached as Exhibit 1.
- 4. On December 14, 2001, i.e. before the mailing of the first Office Action, another Supplemental Information Disclosure Statement Under 37 CFR §1.97 and §1.98 was filed by first class mail. A postcard stamped by the Office acknowledging receipt on January 23, 2002 was returned. A true copy of the Supplemental Information Disclosure Statement Under 37 CFR §1.97 and §1.98 and stamped returned postcard are attached as Exhibit 2.
- 5. After a review of Applicants' file, duplicates of these Information Disclosure Statements were filed as courtesy copies on December 8, 2004 with a request that acknowledgment of their consideration be provided to Applicants. A true copy of this filing is attached as Exhibit 3.
- 6. This request was refused by the Office in a communication mailed March 25, 2005 indicating that the duplicate Information Disclosure Statements would not be considered because they were not accompanied by the certification set forth in 37 C.F.R. §1.97(e) and appropriate fee.

Marc Unger et al.

Application No.: 09/826,583

Page 3

7. A Notice of Allowance was mailed on November 18, 2004 and the Issue Fee was paid on February 22, 2005.

Request for Consideration of Information Disclosure Statements

"An information disclosure statement shall be considered by the Office if filed by the applicant ... [b]efore the mailing of a first Office action on the merits." 37 C.F.R. §1.97(b)(3). Since the Supplemental Information Disclosure Statements filed on November 21, 2001 and December 14, 2001 were filed before the mailing of a first Office Action on the merits, the Office is obliged to consider them. Evidence of proper filing and receipt by the Office of these Supplemental Information Disclosure Statements before the mailing of the first Office Action has been provided in Exhibits 1 and 2 (see ¶¶ 3 and 4 above).

It is respectfully believed that the refusal to consider these Supplemental Information Disclosure Statements as communicated by the Office on March 25, 2005 is based on an incorrect conclusion that they represented new Information Disclosure Statements rather than duplicates of previously filed Information Disclosure Statements. No certification nor fee is required since they were properly filed and received by the Office before the mailing of a first Office Action on the merits. Applicants accordingly request that acknowledgment of their consideration be returned and that the references cited therein be identified among the "references cited" on the patent that issues from the application.

The undersigned discussed the above facts with the Examiner on April 14, 2005, and agreed to submit this petition. The petition fee of \$130 under 37 C.F.R. §1.17(h) is submitted concurrently herewith, although it is believed that the fee is properly waived. Should

Marc Unger et al.

Application No.: 09/826,583

Page 4

the Office determine that any other fees are due for consideration of this petition, it is authorized to charge them to Deposit Account No. 20-1430.

Respectfully submitted,

Patrick M. Boucher Reg. No. 44,037

TOWNSEND and TOWNSEND and CREW LLP Two Embarcadero Center, Eighth Floor San Francisco, California 94111-3834 Tel: (415) 576-0200 Fax: (415) 576-0300

PMB:pmb

60468681 v1

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1) Supplemental Information Disclosure Statement Under 37 PFR\$1.

and §1.98

2) Form PTO/SB/08A/08B 3) Return Postcard

Applicant: Unger et al. Application No.: 09/826,583

For: MICROFABRICATED ELASTOMERIC VALVE A

SYSTEMS Date Due:

Date of Mailing: 11/21/2001

Attorney Docket: 20174C-003010US Attorney: KJT sec. crf

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Documents:

- 1) Supplemental Information Disclosure Statement Under 37 CFR §1.97 and §1.98
- 2) Form PTO/SB/08A/08B
- 3) Return Postcard

Applicant: Unger et al., Application No.: 09/826,583 Filing Date: April 6, 2001.

For: MICROFABRICATED ELASTOMERIC VALVE AND PUMP

SYSTEMS Date Due:

Date of Mailing: 11/21/2001

Attorney: KJT sec. crf

Attorney Docket: 20174C-003010US



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			Annlie	cation Number	09/826,583
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(to be used for all cor		itial filing)			Unger
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		ENCLO	DSURES	(check all that apply)	·
Fee Transmittal F	orm		ment Par Application		After Allowance Communication to Group
Fee Attached		☐ Drawin	g(s)		Appeal Communication to Board of Appeals and Interferences
Amendment / Res	sponse	Licensi	ng-relate	d Papers	Appeal Communication to Group (Appeal Notice, Brief, Reply Brief)
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and Individual name	Kent J. Tobin	<u></u>		Reg No.	39,496
Signature	<u></u>		,		
Date	November 21, 200	1			
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I hereby certify that th class mail in an envel	is correspondence is ope addressed to: As	being depor	sited with	the United States Posta r for Patents, Washingto	nl Service with sufficient postage as first in, D.C. 20231 on this date: November 21, 2001
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Attorney Docket No.: 20174C-003010US

Client Reference No.: CIT No.: P3492

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of:

Marc Unger et al.

Application No.: 09/826,583

Filed: April 6, 2001

For: MICROFABRICATED

ELASTOMERIC VALVE AND PUMP

SYSTEMS

Examiner:

Unassigned

Art Unit:

1772

SUPPLEMENTAL INFORMATION

DISCLOSURE STATEMENT UNDER 37 CFR

§1.97 and §1.98

Assistant Commissioner for Patents Washington, D.C. 20231

Sir:

The references cited on attached form PTO/SB/08A/08B are being called to the attention of the Examiner. In accordance with CFR §1.98(d), copies of the references can be found in Application No. 09/724,784, filed November 28, 2000 (Attorney docket No. 20174C-003000US). It is respectfully requested that the cited references be expressly considered during the prosecution of this application, and the references be made of record therein and appear among the "references cited" on any patent to issue therefrom.

As provided for by 37 CFR 1.97(g) and (h), no representation is being made that a search has been conducted or that this statement encompasses all the possible relevant information, and no inference should be made that the information and references cited are, or are considered to be material to patentability because they are in this statement. No inference should be made that the information and references cited are prior art merely because they are in this statement.

PATENT

Unger et al.

Application No.: 09/826,583

Page 2

Applicant believes that <u>no fee is required</u> for submission of this statement, since it is being submitted prior to the first Office Action. However, if a fee is required, the Commissioner is authorized to deduct such fee from the undersigned's Deposit Account No. 20-1430. Please deduct any additional fees from, or credit any overpayment to, the above-noted Deposit Account.

Respectfully submitted,

Kent J. Tobin Reg. No. 39,496

TOWNSEND and TOWNSEND and CREW LLP Two Embarcadero Center, 8th Floor San Francisco, California 94111-3834

Tel: 650-326-2400 Fax: 650-326-2422

KJT:crf

PA 3184064 v1

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					U.S. PATENT DOCUM	MENTS		
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EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

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¹ Unique citation designation number. ² See attached Kinds of U.S. Patent Documents. ³ Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). 4 For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. 5 Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. 6 Applicant is to place a check mark here if English language Translation is attached.

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PTO/SB/08B (08-00)

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OTHER PRIOR ART NON PATENT LITERATURE DOCUMENTS							
Examiner Initials *	Cite No.1	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T ²				
	1	Gass et al., "Integrated flow-regulated silicon micropump," Sensors and Actuators A, 43335-338 (1994).					
	2	Sohn et al., "Capacitance cytometry: Measuring biological cells one by one," PNAS, 97(20):10687-10690 (2000).					
	3	Zengerle et al., "A Micro Membrane Pump with Electrostatic Actuation," 1992 IEEE Conf. on Micro Electro Mechanical Systems, held 2/4-7/92 in Travemunde Germany, pgs. 19-24.					
	4	Zengerle et al., "Performance Simulation of Microminiaturized Membrane Pumps," from 7th International Conference on Solid-State Sensors and Actuators held 6/7-10/93 in Yokohama Japan, pages 106-109.					

Examiner	Date	
Signature	Considered	·

EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

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PA 3184066 v1



¹ Unique citation designation number. ² Applicant is to place a check mark here if English language Translation is attached.

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and §1.98 2) Form PTO/SB/08A/08B

3) Return Postcard

Applicant: Unger et al. Application No.: 09/826,583

Filing Date: April 6, 2001
For: MICROFABRICATED ELASTOMERIC VALVE AND PUMP

SYSTEMS

Date Dué: Date of Mailing: 12/14/2001

Attorney: KJT sec. crf Attorney Docket: 2017AC

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Documents: 1) Supplemental Information Disclosure Statement Under 37 CFR §1.97 and §1.98

2) Form PTO/SB/08A/08B

3) Return Postcard

Applicant: Unger et al. Application No.: 09/826,583

Filing Date; April 6, 2001 For: MICROFABRICATED ELASTOMERIC VALVE AND PUMP

SYSTEMS

Date Due: Date of Mailing: 12/14/2001

Attorney: KJT sec. crf

Attorney Docket: 20174C-003010US

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Total Number of Pages	in This Submission	1	Attorn	ey Docket Number	2017C4-0	003010US	フ		
	ENCLOSURES (check all that apply)								
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Date	December 14, 200	1		,					
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I hereby certify that this correspondence is being deposited with the United States Postal Service with sufficient postage as first class mail in an envelope addressed to: Assistant Commissioner for Patents, Washington, D.C. 20231 on this date: December 14, 2001									
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PA 3189996 v1

Client Reference No.: CIT No.: P3492

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of:

Marc Unger et al.

Application No.: 09/826,583

Filed: April 6, 2001

For: MICROFABRICATED

ELASTOMERIC VALVE AND PUMP

SYSTEMS

Examiner:

Unassigned

Art Unit:

1772

SUPPLEMENTAL INFORMATION DISCLOSURE STATEMENT UNDER 37 CFR

§1.97 and §1.98

Assistant Commissioner for Patents Washington, D.C. 20231

Sir:

The references cited on attached form PTO/SB/08A/08B are being called to the attention of the Examiner. In accordance with CFR §1.98(d), copies of the references can be found in Application No. 09/724,784, filed November 28, 2000 (Attorney docket No. 20174C-003000US). It is respectfully requested that the cited references be expressly considered during the prosecution of this application, and the references be made of record therein and appear among the "references cited" on any patent to issue therefrom.

As provided for by 37 CFR 1.97(g) and (h), no representation is being made that a search has been conducted or that this statement encompasses all the possible relevant information, and no inference should be made that the information and references cited are, or are considered to be material to patentability because they are in this statement. No inference should be made that the information and references cited are prior art merely because they are in this statement.

Unger et al.

Application No.: 09/826,583

Page 2

Applicant believes that <u>no fee is required</u> for submission of this statement, since it is being submitted prior to the first Office Action. However, if a fee is required, the Commissioner is authorized to deduct such fee from the undersigned's Deposit Account No. 20-1430. Please deduct any additional fees from, or credit any overpayment to, the above-noted Deposit Account.

Respectfully submitted,

Kent J. Tobin Reg. No. 39,496

TOWNSEND and TOWNSEND and CREW LLP Two Embarcadero Center, 8th Floor San Francisco, California 94111-3834

Tel: 650-326-2400 Fax: 650-326-2422

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Substitute for form 1449A/PTO				Complete if Known			
				Application Number	09/826,583		
INFO	RMATION	DIS	CLOSURE	Filing Date	04/06/01		
STATEMENT BY APPLICANT				First Named Inventor	Unger		
				Group Art Unit	1772		
(use as many sheets as necessary)				Examiner Name	Unassigned		
Sheet	1	of	2	Attorney Docket Number	20174C-003010US	· .	

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Substitute for form 1449B/PTO Complete if Known **Application Number** 09/826,583 INFORMATION DISCLOSURE Filing Date 04/06/01 STATEMENT BY APPLICANT **First Named Inventor** Unger 1772 Group Art Unit (use as many sheets as necessary) **Examiner Name** Unassigned 20174C-003010US Attorney Docket Number Sheet

	OTHER PRIOR ART NON PATENT LITERATURE DOCUMENTS	
Cite No.1	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T²
1	Ahn et al., "Fluid Micropumps Based on Rotary Magnetic Actuators," <u>Proceedings of 1995 IEEE Micro Electro Mechanical Systems Workshop (MEMS '95)</u> , held in Amsterdam, Netherlands on 1/29-2/2/95, pgs. 408-412 (1995).	
2	Benard et al., "A Titanium-Nickel Shape-Memory Alloy Actuated Micropump," <u>Proceedings of Transducers '97</u> , 1997 International Conference on Solid-State Sensors and Actuators, held in Chicago, Il., 6/16-19/1997, 1:361-364 (1997).	
3	Gerlach, T., "Pumping Gases by a Silicon Micro Pump with Dynamic Passive Valves," <u>Proceedings of Transducers '97</u> , 1997 International Conference on Solid-State Sensors and Actuators, held in Chicago, II., 6/16-19/1997, 1:357-360 (1997).	
4	Jerman, H., "Electrically-Activated, Normally-Closed Diaphragm Valves," <u>Proceedings of Transducers '91</u> , 1991 International Conference on Solid-State Sensors and Actuators, pages 1045-1048 (1991).	
5	Olsson et al., "Simulation Studies of Diffuser and Nozzle Elements for Valve-less Micropumps," <u>Proceedings of Transducers '97, 1997 International Conference on Solid-State Sensors and Actuators, held in Chicago, Il., 6/16-19/1997, 2:1039-1042 (1997).</u>	
6	Shoji et al., "Smallest Dead Volume Microvalves for Integrated Chemical Analyzing Systems," Proceedings of Transducers '91, 1991 International Conference on Solid-State Sensors and	
7	Vieider et al., "A Pneumatically Actuated Micro Valve with a Silicone Rubber Membrane for Integration with Fluid-Handling Systems," <u>Proceedings of Transducers '95</u> , the 8th International Conference on Solid-State Sensors and Actuators and Eurosensors IX, held in Stockholm, Sweden on 6/25-29/95, 2:284-286 (1995).	
8	Xia et al., "Micromolding in Capillaries: Applications in Material Science," <u>J. American Chemical Society</u> , 118:5722-5731 (1996).	
9	Yang et al., "A MEMS Thermopneumatic silicone Membrane Valve," <u>Proceedings of the IEEE 10th Annual Workshop of Micro Electro Mechanical Systems Workshop (MEMS '97)</u> , held 1/26-30/97 in Nagoya, Japan, pages 114-118 (1997).	
	No. ¹ 1 2 3 4 5 6 7	Cite No.¹ Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published. Ahn et al., "Fluid Micropumps Based on Rotary Magnetic Actuators," Proceedings of 1995 IEEE Micro Electro Mechanical Systems Workshop (MEMS '95), held in Amsterdam, Netherlands on 1/29-2/2/95, pgs. 408-412 (1995). Benard et al., "A Titanium-Nickel Shape-Memory Alloy Actuated Micropump," Proceedings of Transducers '97, 1997 International Conference on Solid-State Sensors and Actuators, held in Chicago, II., 6/16-19/1997, 1:361-364 (1997). Gerlach, T., "Pumping Gases by a Silicon Micro Pump with Dynamic Passive Valves," Proceedings of Transducers '97, 1997 International Conference on Solid-State Sensors and Actuators, held in Chicago, II., 6/16-19/1997, 1:357-360 (1997). Jerman, H., "Electrically-Activated, Normally-Closed Diaphragm Valves," Proceedings of Transducers '91, 1991 International Conference on Solid-State Sensors and Actuators, pages 1045-1048 (1991). Olsson et al., "Simulation Studies of Diffuser and Nozzle Elements for Valve-less Micropumps," Proceedings of Transducers '97, 1997 International Conference on Solid-State Sensors and Actuators, held in Chicago, II., 6/16-19/1997, 2:1039-1042 (1997). Shoji et al., "Smallest Dead Volume Microvalves for Integrated Chemical Analyzing Systems," Proceedings of Transducers '91, 1991 International Conference on Solid-State Sensors and Actuators, pages 1052-1055 (1991). Vieider et al., "A Pneumatically Actuated Micro Valve with a Silicone Rubber Membrane for Integration with Fluid-Handling Systems," Proceedings of Transducers '95, the 8th International Conference on Solid-State Sensors and Actuators and Eurosensors IX, held in Stockholm, Sweden on 6/25-29/95, 2:284-286 (1995). Xia et al., "Micromolding in Capillaries: Applications in Material Science," J. American Chemical Society, 118:5722-5

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¹ Unique citation designation number. ² Applicant is to place a check mark here if English language Translation is attached.

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US Patent Application No. 09/826,583

For: MICROFABRICATED ELASTOMERIC VALVE AND PUMP SYSTEMS

Inventor: Marc Unger Filed: April 6, 2001

Attorney Docket No.: 20174C-003010US

1. Transmittal Form

- 2. Communication to Examiner
- 3. Copy of IDS, transmittal and postcard submitted 12/14/2001
- 4. Copy of IDS, transmittal and postcard submitted 11/21/2001
- 5. Copies of nine (9) cited references from 12/14/2001 IDS

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PTO/SB/21 (09-04) **Application Number** 09/826,583 **TRANSMITTAL** Filing Date April 6, 2001 **FORM** First Named Inventor Unger, Marc Art Unit 3753 **Examiner Name** Chambers, A. Michael (to be used for all correspondence after initial filing) Attorney Docket Number 20174C-003010US Total Number of Pages in This Submission **ENCLOSURES** (Check all that apply) After Allowance Communication to Fee Transmittal Form Drawing(s) Examiner Appeal Communication to Board Fee Attached Licensing-related Papers of Appeals and Interferences Appeal Communication to TC Amendment/Reply Petition (Appeal Notice, Brief, Reply Brief) Petition to Convert to a After Final **Provisional Application** Proprietary Information Power of Attorney, Revocation Affidavits/declaration(s) Change of Correspondence Address Status Letter Other Enclosure(s) (please identify Extension of Time Request Terminal Disclaimer below): -Return Postcard **Express Abandonment Request** Request for Refund -Copy of IDS, transmittal, and postcard Information Disclosure Statement submitted 12/14/2001 CD, Number of CD(s) -Copies of nine (9) cited References from the 12/14/2001 IDS -Copy of IDS, transmittal, and postcard submitted 11/21/2001 Landscape Table on CD The Commissioner is authorized to charge any additional fees to Deposit Certified Copy of Priority Remarks Document(s) Account 20-1430. Reply to Missing Parts/ Incomplete Application Reply to Missing Parts under 37 CFR 1.52 or 1.53

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Townsend and Townsend and Crew LLP

Patrick M. Boucher

Firm Name

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Date

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TOWNSEND and TOWNSEND and CREW LLP

Nicole M. Warrell

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of:

Examiner:

Chambers, A. Michael

Marc Unger et al.

Art Unit:

3753

Application No.: 09/826,583

COMMUNICATION

Filed: April 6, 2001

For: MICROFABRICATED

ELASTOMERIC VALVE AND PUMP

SYSTEMS

Commissioner for Patents P.O. Box 1450 Alexandria, VA 22313-1450

Sir:

This communication provides courtesy copies of the Information Disclosure Statement filed on December 14, 2001. It appears from the Image File Wrapper on the U.S.P.T.O. website and file history that this IDS was never considered by the Examiner. The copy of the IDS provided is identical to that submitted on December 14, 2001. A copy of a date-stamped postcard is also enclosed to show prior receipt of the IDS by the U.S. Patent Office on January 23, 2002. Applicants also enclose herewith

copies of the cited non-patent literature references identical to those cited in the December 14, 2001 IDS for the Examiner's convenience.

Applicants would also like to make the Examiner aware of the November 21, 2001 references that have not been made of record in this application. This communication provides courtesy copies of the Information Disclosure Statement filed on November 21, 2001. The copy of the IDS provided is identical to that submitted on November 21, 2001. A copy of a date-stamped postcard is also enclosed to show prior receipt of the IDS by the U.S. Patent Office on January 4, 2002. The references cited in this particular IDS were submitted to the U.S. Patent Office by hand on January 23, 2004.

Applicants request that cited references from the Information Disclosure Statements submitted on December 14, 2001 and the non-patent literature references submitted on November 21, 2001 be expressly considered during the prosecution of this application, and the references be made of record therein and appear among the "references cited" on any patent to issue therefrom.

Applicants request that Examiner Chambers consider these references and provide applicants a checked-off copy of the attached Information Disclosure Statements to show that these references have been considered pursuant to 37 CFR § 1.97.

If the Examiner has any questions regarding this submission, please call the undersigned at 303-571-4000.

Respectfully submitted.

Patrick M. Boucher Reg. No. 44,037

TOWNSEND and TOWNSEND and CREW LLP Two Embarcadero Center, Eighth Floor San Francisco, California 94111-3834 Tel: (415) 576-0200

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Applicant: Unger et al. Application No.: 09/826,583

Filing Date: April 6, 2001
For: MICROFABRICATED ELASTOMERIC VALVE AND PUMP

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Attorney: KJT sec. crf Attorney Docket

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Applicant: Unger et al. Application No.: 09/826,583 Filing Date: April 6, 2001

For: MICROFABRICATED ELASTOMERIC VALVE AND PUMP

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Date of Mailing: 12/14/2001 Attorney: KJT sec. crf

Attorney Docket: 20174C-003010US

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Fee Transmittal F	orm	Assignment Papers (for an Application)		After Allowance Communication to Group			
Fee Attached	1	Drawing(s)		Appeal Communication to Board of Appeals and Interferences			
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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of:

Marc Unger et al.

Application No.: 09/826,583

Filed: April 6, 2001

For: MICROFABRICATED

ELASTOMERIC VALVE AND PUMP

SYSTEMS

Examiner:

Unassigned

Art Unit:

1772

SUPPLEMENTAL INFORMATION

DISCLOSURE STATEMENT UNDER 37 CFR

§1.97 and §1.98

Assistant Commissioner for Patents Washington, D.C. 20231

Sir:

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Application No.: 09/826,583

Page 2

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Respectfully submitted,

Kent J. Tobin Reg. No. 39,496

TOWNSEND and TOWNSEND and CREW LLP Two Embarcadero Center, 8th Floor San Francisco, California 94111-3834

Tel: 650-326-2400 Fax: 650-326-2422

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STATEMENT BY APPLICANT	First Named Inventor	Unger			
	Group Art Unit	1772			
(use as many sheets as necessary)	Examiner Name	Unassigned			
Sheet 2 of 2	Attorney Docket Number	20174C-003010US			

		OTHER PRIOR ART - NON PATENT LITERATURE DOCUMENTS	
Examiner Initials *	Cite No.1	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T²
	1	Ahn et al., "Fluid Micropumps Based on Rotary Magnetic Actuators," <u>Proceedings of 1995 IEEE Micro Electro Mechanical Systems Workshop (MEMS '95)</u> , held in Amsterdam, Netherlands on 1/29-2/2/95, pgs. 408-412 (1995).	
	2	Benard et al., "A Titanium-Nickel Shape-Memory Alloy Actuated Micropump," <u>Proceedings of Transducers '97</u> , 1997 International Conference on Solid-State Sensors and Actuators, held in Chicago, II., 6/16-19/1997, 1:361-364 (1997).	
	3	Gerlach, T., "Pumping Gases by a Silicon Micro Pump with Dynamic Passive Valves," <u>Proceedings of Transducers '97</u> , 1997 International Conference on Solid-State Sensors and Actuators, held in Chicago, II., 6/16-19/1997, 1:357-360 (1997).	·
	4	Jerman, H., "Electrically-Activated, Normally-Closed Diaphragm Valves," Proceedings of Transducers '91, 1991 International Conference on Solid-State Sensors and Actuators, pages 1045-1048 (1991).	· .
	5	Olsson et al., "Simulation Studies of Diffuser and Nozzle Elements for Valve-less Micropumps," <u>Proceedings of Transducers '97</u> , 1997 International Conference on Solid-State Sensors and Actuators, held in Chicago, Il., 6/16-19/1997, 2:1039-1042 (1997).	
	6	Shoji et al., "Smallest Dead Volume Microvalves for Integrated Chemical Analyzing Systems," <u>Proceedings of Transducers '91</u> , 1991 International Conference on Solid-State Sensors and Actuators, pages 1052-1055 (1991).	
	7	Vieider et al., "A Pneumatically Actuated Micro Valve with a Silicone Rubber Membrane for Integration with Fluid-Handling Systems," <u>Proceedings of Transducers '95</u> , the 8th International Conference on Solid-State Sensors and Actuators and Eurosensors IX, held in Stockholm, Sweden on 6/25-29/95, 2:284-286 (1995).	
	. 8	Xia et al., "Micromolding in Capillaries: Applications in Material Science," <u>J. American</u> <u>Chemical Society</u> , 118:5722-5731 (1996).	
	9	Yang et al., "A MEMS Thermopneumatic silicone Membrane Valve," <u>Proceedings of the IEEE 10th Annual Workshop of Micro Electro Mechanical Systems Workshop (MEMS '97)</u> , held 1/26-30/97 in Nagoya, Japan, pages 114-118 (1997).	

			
Examiner		Date	
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Applicant: Unger et al. Application No.: 09/826,583

Filing Date: April 6, 2001

For: MICROFABRICATED ELASTOMERIC VALVE AND

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Attorney Docket: 20174C-003010US

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For: MICROFABRICATED ELASTOMERIC VALVE AND PUMP

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Attorney Docket: 20174C-003010US

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(to be used for all correspondence after	initial filing)	Group Art Unit	1772
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	ENCLO	SURES (check all that apply)
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Individual name Kent J. Tobin		Reg N	lo. 39,496
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Attorney Docket No.: 20174C-003010US Client Reference No.: CIT No.: P3492

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of:

Marc Unger et al.

Application No.: 09/826,583

Filed: April 6, 2001

For: MICROFABRICATED

ELASTOMERIC VALVE AND PUMP

SYSTEMS

Examiner:

Unassigned

Art Unit:

1772

SUPPLEMENTAL INFORMATION
DISCLOSURE STATEMENT UNDER 37 CFR

§1.97 and §1.98

Assistant Commissioner for Patents Washington, D.C. 20231

Sir:

The references cited on attached form PTO/SB/08A/08B are being called to the attention of the Examiner. In accordance with CFR §1.98(d), copies of the references can be found in Application No. 09/724,784, filed November 28, 2000 (Attorney docket No. 20174C-003000US). It is respectfully requested that the cited references be expressly considered during the prosecution of this application, and the references be made of record therein and appear among the "references cited" on any patent to issue therefrom.

As provided for by 37 CFR 1.97(g) and (h), no representation is being made that a search has been conducted or that this statement encompasses all the possible relevant information, and no inference should be made that the information and references cited are, or are considered to be material to patentability because they are in this statement. No inference should be made that the information and references cited are prior art merely because they are in this statement.

Unger et al. Application No.: 09/826,583 Page 2

Applicant believes that <u>no fee is required</u> for submission of this statement, since it is being submitted prior to the first Office Action. However, if a fee is required, the Commissioner is authorized to deduct such fee from the undersigned's Deposit Account No. 20-1430. Please deduct any additional fees from, or credit any overpayment to, the above-noted Deposit Account.

Respectfully submitted,

Kent J. Tobin Reg. No. 39,496

TOWNSEND and TOWNSEND and CREW LLP Two Embarcadero Center, 8th Floor San Francisco, California 94111-3834

Tel: 650-326-2400 Fax: 650-326-2422

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Sheet	11	of	2	Attorney Docket Number	20174C-003010US

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Sheet	12	of	2	Attorney Docket Number	20174C-003010US	

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	ı	Gass et al., "Integrated flow-regulated silicon micropump," Sensors and Actuators A, 43335-338 (1994).	
	2	Sohn et al., "Capacitance cytometry: Measuring biological cells one by one," PNAS, 97(20):10687-10690 (2000).	
	3	Zengerle et al., "A Micro Membrane Pump with Electrostatic Actuation," 1992 IEEE Conf. on Micro Electro Mechanical Systems, held 2/4-7/92 in Travemunde Germany, pgs. 19-24.	
	4	Zengerle et al., "Performance Simulation of Microminiaturized Membrane Pumps," from 7th International Conference on Solid-State Sensors and Actuators held 6/7-10/93 in Yokohama Japan, pages 106-109.	
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